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First Annual Report on Recycling Cellular Telephones in Maine

Maine Department of Environmental Protection

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First Annual Update Report on the Recycling of Cellular Telephones in Maine

Maine Department of Environmental Protection

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I. Background and Summary

Like other electronics with circuit boards, liquid crystal displays and plastic components, cell phones contain hazardous substances including antimony, arsenic, beryllium, cadmium, copper, lead, nickel, zinc and brominated flame retardants. Collecting cell phones for reuse and recycling prevents the release of these contaminants to the environment and recaptures useable commodities for use in manufacturing new products.

Consumers replace their cell phones every 18-24 months, resulting in an estimated 450,000 waste cell phones generated in Maine each year. Despite the widespread availability of free cell phone recycling, in 2003 an estimated 1% of waste cell phones were recycled. Maine's *Cellular Telephone Recycling* law sought to address barriers to cell phone recycling which were highlighted in the DEP's *Report on the Recycling of Cellular Telephones in Maine* submitted to the Legislature in January 2007. Specifically, collection for recycling needs to be very convenient and consumers need to be motivated to turn their cell phones in for recycling rather than simply throwing them in the trash.

To enhance cell phone recycling, in 2007 the 123rd Maine Legislature adopted Public Law Chapter 343, *An Act To Promote Recycling of Cellular Telephones* (38 M.R.S.A. §2143) (Appendix A). This law requires cellular telephone service providers and retailers of cellular telephones to accept used cell phones at no charge from consumers for recycling and to post a sign in a prominent location to inform consumers of their recycling opportunity. It also imposes a disposal ban on cell phones. These provisions became effective on January 1, 2008. Additionally, the law requires annual reporting on recycling efforts by cell phone service providers, and an annual report by the Maine Department of Environmental Protection (DEP) on the collection system to the Legislature until 2013.

Maine consumers now have approximately 900 cellular telephone recycling collection sites available to them, as well as prepaid mailing labels available from the internet. Due to the myriad of recycling programs available and the varied sophistication of their source tracking, it is not possible to collect complete data on cell phone recycling in Maine. However, based on data in the wireless service providers' annual reports and additional data voluntarily provided by major cell phone recycling programs, we know that Mainers recycled approximately 54,400 cell phones in 2008. Although this is only 12% of the estimated number of cell phones available for recycling, it reflects a significant increase over the estimated 1% recycling rate for 2003. This 2008 data on cell phone recycling in Maine establishes a baseline from which to assess trends in cell phone recycling collection efforts in Maine over the next several years.

II. Convenient collection

As of January 2009, Maine DEP has identified 453 cell phone retailers throughout the state, including retailers owned by wireless service providers, retailers “authorized” by wireless service providers, major retail chains, and small businesses. These retailers are located in all counties:

County	Number of affiliated* retailers	Number of non-affiliated retailers
Androscoggin	8	34
Aroostook	9	23
Cumberland	22	77
Franklin	2	7
Hancock	6	13
Kennebec	11	37
Knox	4	10
Lincoln	1	6
Oxford	3	16
Penobscot	13	56
Piscataquis	3	7
Sagadahoc	2	10
Somerset	3	11
Waldo	1	8
Washington	3	6
York	9	28
Totals	100	349

*owned by, or an authorized dealer of, a wireless service provider.

In addition to these retail locations which are required to accept cell phones for recycling, there are many voluntary collection locations. Examples include:

- The Rechargeable Battery Recycling Corporation (RBRC) recently began accepting cellular telephones in addition to rechargeable batteries. RBRC has collection boxes at 672 retail, business, community, and government locations throughout Maine. This program is used by many cell phone retailers.
- Fourteen non-profit locations use the Collective Good recycling program, which also offers postage paid mailing labels over the internet. Maine residents from York to Castine recycled cell phones through this program in 2008.
- There are an additional 30 non-profit locations collecting cell phones in Maine listed on www.Earth911.com.

These programs alone account for approximately 900 cell phone recycling collection locations across Maine, ensuring Maine residents have a convenient collection system.

III. Recycling data – A baseline from which to assess effectiveness of collection efforts

38 M.R.S.A. §2143.4 requires “cellular telephone service providers” (defined as “a provider of wireless voice or data retail services”) to report annually for five years to the DEP on the number of cell phones collected at their retail locations in Maine and on how the cell phones are reused or recycled. Because there are many cell phone collection and recycling programs offered via the internet and in locations other than the service providers’ retail locations, the number of cell phones reported as recycled through these retail locations is a subset of all phones recycled in the state. This service provider data combined with additional data voluntarily provided by other cell phone recycling programs (e.g., RBRC, Collective Good, ReCellular), will be useful in discerning whether Maine residents generally recycle their cell phones as well as trends in cell phone recycling rates over the next few years.

A. Data from wireless service providers’ annual reports

In its June 2008 *Ratewatcher Telecom Guide*, the Maine Public Advocate’s Office lists five wireless service providers who offer service in Maine. These five entities provided the following information in their first annual report due to Maine DEP in January 2009:

Wireless Service Provider	Number of Maine retail locations	Number of cell phones reported recycled in Maine	Recycling program
AT&T Wireless (includes Cingular)	8	22,639*	AT&T Reuse & Recycle
Rural Cellular Corporation (Unicel)	44	15,317	Unicel
T-Mobile	2	Report not yet received	T-Mobile “Huddle-Up”
U.S. Cellular	13	511**	US Cellular
Verizon	10	4094	Verizon’s HopeLine
Unaffiliated retailers reporting	5	5668	various
Totals	82	48,229	

*Estimated from national numbers

** Reporting incomplete; individual retail “authorized dealers” may select alternative recycling program.

Number of phones is estimated based on assuming 3.5 phones per pound recycled.

Additionally, Sprint/Nextel reported that it has one retail location in South Portland at which they offer a prepaid mailer for recycling cell phones through the Sprint Project Connect charity. Sprint/Nextel’s annual report did not include any accounting of cell phones recycled from Maine through this program in 2008.

B. Data from common cell phone recycling collection programs

Three major cell phone recycling programs which track cell phone receipts by source have provided the DEP with the following information on their cell phone recycling collection efforts in Maine in 2008.

Rechargeable Battery Recycling Corporation (2005- 1082 cell phones collected)

Collection site type	Number of Sites	Pounds of Cell Phones	Number of Cell Phones
Retail Stores	391	516	1763
Businesses	43	23	91
Public Agencies	98	123	471
Communities	140	46	182
Totals	672	708	2507*

*797 of these 2507 were also accounted for in the wireless service providers' annual reports

ReCellular

Collection site type	Number of Cell Phones	Total Reused	Total recycled
Collection sites	5600	3833	1767
Individual mailers	1535	1089	466
Totals	7135	4922 (69%)	2233 (31%)

Collective Good

Collection site type	Number of Sites	Number of Cell Phones
Retail Stores	7	472
Non-profits	31	131
Internet	N/A	16
Totals	38	619

Using the two data sets (one from the wireless service providers, the other from the recyclers), we are able to estimate that approximately 54,400 cell phones were reported as recycled from Maine in 2008.

IV. Compliance

In late 2007, DEP mailed notice of Maine's new cell phone recycling law to a purchased address listing of wireless cell phone service retailers in Maine. Along with the notice, this mailing included a copy of the law and a sample sign that could be used by retailers to meet the signage requirement of the law (the notice and sample sign are reproduced in Appendix B).

Additionally, both DEP and SPO solid waste program staff routinely included information on this law in their trainings and presentations to municipal and school groups throughout 2008.

A. Retail store compliance

In 2008, DEP began fieldwork to identify entities needing one-on-one outreach and to assess compliance. Of the 88 sites visited by early January 2009, approximately 73% had collection

programs. Some retailers, such as Verizon, Best Buy and Staples, have well-developed programs implemented in all their stores with information encouraging donations to support charitable causes. Appendix C shows a sample sign from one of these well-developed programs adapted to comply with Maine's law. However, some of these collection programs were not well advertised, and not all had a prominently posted sign meeting the legal requirement.

As result of initial field work, DEP sought out corporate contacts to bring major retail chains (e.g., 21 Wal-Marts, 80 Rite Aids, 29 Cumberland Farms, and 48 Family Dollars) into compliance with all requirements. Also, DEP created laminated signs and began offering these to retailers who needed one beginning with site visits in November 2008.

B. Wireless service provider compliance

Of the six wireless service providers, AT&T, Unicel, and Verizon consistently implement and actively market their corporate-affiliated cell phone recycling programs in their retail outlets in Maine. These three providers are generally in compliance with all provisions of Maine's cell phone recycling law, including the annual reporting requirement.

DEP field visits found inconsistent implementation in the U.S. Cellular authorized dealer stores, with most not actively advertising the availability of their cell phone recycling service. DEP staff has not yet visited the two T-Mobile retail locations to assess their compliance with the law's provisions on offering free recycling of cell phones and visible signage. U.S. Cellular and T-Mobile are delinquent in completing their first annual report, although DEP expects they will soon come into compliance with this requirement. Sprint/Nextel has only one store front in Maine. They did submit their first annual report, but the information provided demonstrates that they may not be fully implementing the requirement to offer free cell phone recycling to anyone, not just customers purchasing a new phone. DEP will follow-up to ensure that Sprint/Nextel fully implements this requirement.

C. Prepaid cell phone providers

There are a number of businesses that provide wireless service only through prepaid phones, e.g., Tracfone (including Net10), Virgin Mobile, CoinStar. InComm, PaySpot, Alltell, and BoostMobile. These entities are known as "mobile virtual network operators". They do not operate their own networks, nor have their own retail stores; rather they resell airtime which they purchase from the others' networks. For these reasons, DEP considers them outside of the scope of the definition of wireless service provider in the context of Maine's cell phone recycling law.

V. Conclusion

Maine's new cell phone law has resulted in the successful establishment of a convenient collection system for Maine consumers. The next challenge is to assure that consumers know about the system and are motivated to recycle their old cell phones. DEP is continuing its outreach to retailers to ensure they post a clearly visible sign about their free recycling service. Also, DEP and SPO will continue working with our municipal partners to educate local residents on the need to recycle cell phones at the end of life.

Appendix A – Maine’s Cell Phone Recycling Law

Public Law
123rd Legislature
First Regular Session
Chapter 343
H.P. 1200 - L.D. 1717

An Act To Promote Recycling of Cellular Telephones

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 38 MRSA §2143 is enacted to read:

§ 2143. Cellular telephone recycling

1. Definitions. As used in this section, unless the context otherwise indicates, the following terms have the following meanings.

A. "Cellular telephone" means a mobile wireless telephone device that is designed to send or receive transmissions through a cellular radiotelephone service as defined in 47 Code of Federal Regulations, Section 22.99 (2005). "Cellular telephone" does not include a wireless telephone device that is integrated into the electrical architecture of a motor vehicle.

B. "Cellular telephone service provider" means a provider of wireless voice or data retail service.

C. "Retailer" means a person, firm or corporation that sells or offers to sell a cellular telephone to a consumer at retail.

2. Collection system. Effective January 1, 2008, a retailer shall accept, at no charge, used cellular telephones from any person. A retailer required to accept used cellular telephones under this subsection shall post, in a prominent location open to public view, a notice printed in boldface type and containing the following language: "We accept used cellular telephones at no charge."

3. Disposal ban. Effective January 1, 2008, a person may not dispose of a cellular telephone in solid waste for disposal in a solid waste disposal facility.

4. Reports. By January 1, 2009, and every year thereafter until January 1, 2013, a cellular telephone service provider shall report to the department the number of cellular telephones collected pursuant to this section and how the collected cellular telephones were disposed of, reused or recycled. By February 1, 2009 and every year thereafter until February 1, 2013, the department shall report on the collection system to the joint standing committee of the Legislature having jurisdiction over natural resources matters.

Effective September 20, 2007

Appendix B – Notice to Service Providers and Sample Sign

Maine has a new cell phone recycling law.

Beginning January 1, 2008, any person, firm or corporation that sells a cellular telephone at retail in Maine **must accept used cell phones for recycling at no charge to the customer**.

Anyone that sells cell phones at retail also must post a notice, in a prominent location clearly visible to the public, that says in bold:

**We accept used cellular
telephones at no charge.**

Maine law requires that you recycle all cell phones.

Annually beginning January 1, 2009, cellular telephone service providers must report to the Maine Department of Environmental Protection the number of cell phones collected and how they were disposed of, reused or recycled.

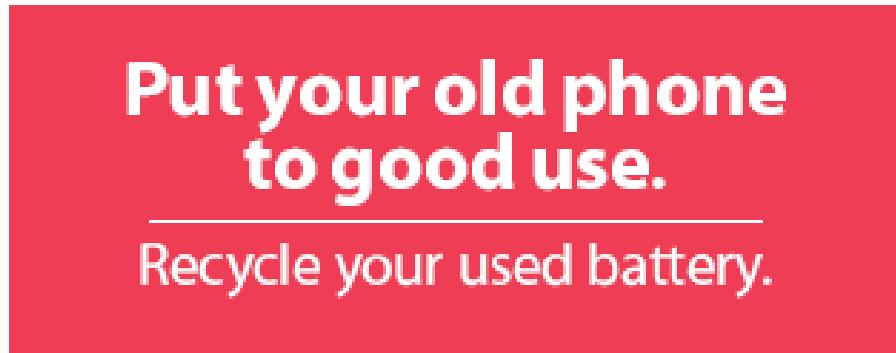
A sample poster and the annual report form which you can use to comply with the law is available at www.maine.gov/dep/rwm/recycle/cellphonerecycling.htm. FMI - contact Carole Cifrino at Maine DEP at 207-287-7720 or at carole.a.cifrino@maine.gov.





We accept
used cellular
telephones
for recycling
at no charge.

Appendix C- Sample Wireless Carrier Recycling Sign



Link up with a good cause. Donate your old phone to support victims of domestic violence.

With your help, Verizon Wireless is putting wireless phones and services into the hands of domestic violence victims. We are proud to provide this wireless phone and battery recycling program to support such an important cause. To learn more about our recycling program, ask a sales representative about our Hopeline box or, if no box is available, give your phone to our representative for mailing.

**WE ACCEPT USED CELLULAR
TELEPHONES AT NO CHARGE**